

April 10, 2002

MEMORANDUM TO: Stephanie M. Coffin, Section Chief
Structural Integrity & Metallurgy Section
Materials and Chemical Engineering Branch

FROM: Steven D. Bloom, Lead Project Manager for Bulletin 2002-01 **(RA by SDB)**
Structural Integrity and Metallurgy Section
Materials and Chemical Engineering Branch

SUBJECT: SUMMARY OF MARCH 13, 2002 TELEPHONE CONVERSATION ON
THE DAVIS BESSE REACTOR VESSEL HEAD DEGRADATION
FOLLOW-UP

This memorandum is written to document the telephone conversation which occurred on March 13, 2002, between the Nuclear Energy Institute (NEI), the Electric Power Research Institute (EPRI)/Materials Reliability Program (MRP), and the NRC. The NRC was represented by Brian Sheron, Jack Strosnider, William Bateman, and Steven Bloom, while the MRP was represented by Mike Short, Chairman of the Issues and Integration Group (IIG).

Mike Short stated that the MRP was working with the Davis Besse root cause investigation team to determine the potential effect of the Davis Besse findings on other licensees. He stated that he expected the wastage issue to be attributed to boric acid. MRP developed a request for information from all licensees following the previous telephone conversations between the NRC and the MRP on March 8, 2002. (See ML020700711)

The MRP asked four questions of all pressurized water reactors (PWRs), which they paraphrased:

1. At your most recent inspection, did you do a sufficient visual examination over 100% of the head to have detected external surface corrosion or accumulation of boric acid crystals?
2. If the visual inspection was not 100% (or was in some way hampered), can you confidently say that you don't have external head corrosion?
3. If ultrasonic testing (UT) or another non-visual approach was used at your most recent inspection, was the UT examination capable of detecting corrosion of the low alloy steel head material (changes in back reflection)? Did you perform a full length UT of the RPV nozzles to the top of the head?
4. For plants with spring 2002 outages (all susceptible "classes"), what plans can you make/how will you show that there is not significant boric acid corrosion?

The MRP stated that they had received responses from all plants and that they would talk about them at the meeting on March 19, 2002. The MRP indicated they were considering, or doing the following:

1. Develop inspection guidance for future inspections. This guidance would address leakage from above the head and the potential for leakage from vessel head penetration nozzles.
2. MRP members are part of the Davis Besse root cause effort and will conduct a review of the findings for generic implications.
3. The owners groups in the last decade has performed substantial work on wastage from boric acid and will review this information in light of the Davis Besse event. They will also look at how plants responded to Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants."

The MRP stated that the author of the EPRI Boric Acid Corrosion Guide Book, is on the Davis Besse root cause team.

4. Incorporate the Davis Besse findings into the control rod drive mechanism (CRDM) risk assessment findings.

The MRP stated that the information they collected from their survey would address NRC's questions 1 and 2 of Brian Sheron's letter dated March 11, 2002 (ML020700711). They stated that question 3 will take more time to answer. The NRC discussed a potential need for a justification for continued operation for some plants if the next outage of opportunity for an inspection of the RPV head is not scheduled for another year.

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